| \vdash | Type | Hits | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|----------|------|----------|--|--|---------------------|----------|------------------|--------|
| l | BRS | Q | (DBR or mirror or reflect\$5) and voltage same reduce and (optical near3 loss) and VCSEL | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/08/11 | | | 0 |
| | BRS | 30 | ((DBR or mirror or reflect\$5) and voltage same reduce and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:12 | | | 0 |
| i — : | BRS | 6 | (((DBR or mirror or reflect\$5) and voltage same reduce and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic)) AND (ANTIMON\$6 OR SB) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:12 | | | 0 |
| i | BRS | 7 | (DBR or mirror or reflect\$5) and voltage same (reduc\$5 near3 drop) and (optical near3 loss) and VCSEL | • | 2002/11/12 14:58 | | | 0 |
| i | BRS | 15 | (DBR or mirror or reflect\$5) and (voltage near3 drop) same (reduc\$5) and (optical near3 loss) and VCSEL | · · · · · · · · · · · · · · · · · · · | 2002/11/12 15:08 | | | 0 |
| | BRS | 13 | ((DBR or mirror or reflect\$5) and (voltage near3 drop) same (reduc\$5) and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 14:59 | | | 0 |
| | BRS | S | (((DBR or mirror or reflect\$5) and (voltage near3 drop) same (reduc\$5) and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic)) AND (ANTIMON\$6 OR SB) | | 2002/11/12 15:00 | | | 0 |
| | BRS | 29 | (DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:20 | | | 0 |
| | IS&R | 2 | (("5724374") or ("5991326")).PN. | USPAT | 2002/11/12 15:11 | | | 0 |
| | BRS | 46 | ((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic) | | 2003/11/18 13:14 | | | 0 |
| | BRS | 6 | (((DBR or mirror or reflect\$5) and voltage same reduce and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic)) AND (ANTIMON\$6 OR SB)) AND (ANTIMON\$6 OR SB) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:18 | | | 0 |

| | Type | Hits | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|----|------|------|--|--|---------------------|----------|------------------|--------|
| 12 | BRS | 12 | ((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/13 09:02 | | | 0 |
| 13 | BRS | 6 | ((((DBR or mirror or reflect\$5) and voltage same reduce and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic)) AND (ANTIMON\$6 OR SB)) AND (ANTIMON\$6 OR SB)) AND (ANTIMON\$6 OR SB) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:21 | | | 0 |
| 14 | BRS | 35 | (DBR or mirror or reflect\$5) and (voltage) WITH (reduc\$5) and (optical near3 loss) and VCSEL | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:21 | | | 0 |
| 15 | BRS | 10 | ((DBR or mirror or reflect\$5) and (voltage) WITH (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) | | 2002/11/12 15:21 | | | 0 |
| 16 | BRS | 10 | (((DBR or mirror or reflect\$5) and (voltage) WITH (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB)) and (aluminum or gallium or arsenic) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:34 | | | 0 |
| 17 | BRS | 26 | ((DBR or mirror or reflect\$5) and (voltage) WITH (reduc\$5) and (optical near3 loss) and VCSEL) and (aluminum or gallium or arsenic) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/12 15:35 | | | 0 |
| 18 | BRS | 11 | (((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND ((ANTIMON\$6 OR SB) and aluminum) and gallium | | 2002/11/13 09:06 | | | 0 |
| | BRS | 11 | ((((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum) and gallium) and (arsenic or As) | •••••••••••••••••••••••••••••••••••••• | 2002/11/13 09:11 | | | 0 |
| | BRS | 11 | ((((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum) and gallium) and (arsen\$5 or As) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/13 09:11 | | | 0 |
| | BRS | 10 | ((DBR or mirror or reflect\$5) and (voltage WITH reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/13 09:33 | | | 0 |

| Hits | | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|--|---|--|--|---------------------|----------|------------------|--------|
| (((((DBF) 11 (reduc\$) (ANTIN (arsen\$) | (((((DBF) (reduc\$) (ANTIN (arsen\$) | ((((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum) and gallium) and (arsen\$5 or As)) and epitaxia\$6 | | 2002/11/13 09:33 | | | 0 |
| (((((DE 11 (reduc (ANTI | (((((DE (reduc (ANTI (arsen | (((((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum) and gallium) and (arsen\$5 or As)) and (epitaxia\$6 with grow\$5) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/11/13 09:34 | | | 0 |
| ((DBF) | ((DBF (redu | ((DBR or mirror or reflect\$5) and (voltage) same (reduc\$5) and (optical near3 loss) and VCSEL) AND (ANTIMON\$6 OR SB) and aluminum | S-PGPUB; T; | 2003/12/01 05:17 | | | 0 |
| 2 ("539; | ("539) | ("5392307").PN. | ···· | 2003/12/01 06:08 | | | 0 |
| 4 (("539 | (("539 | (("5392307") or ("5914976")).PN. | | 2002/11/13 16:22 | | | 0 |
| 4 (("59 | (("59 | (("5985686") or ("5914976")).PN. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/11/28 11:41 | | | 0 |
| | | | • | 1969/12/31 19:00 | | | |
| 2 ("55 | ("55") | ("5553089").PN. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/12/01 05:22 | | | 0 |
| 1 ("5,6 | ("5,6 | ("5,633,527").PN. | | 2003/12/01 05:18 | | | 0 |
| 215 (FP or (a | (FP or (a | (FP or (Fabry near perot) near semiconductor) and (trench USPAT or (air near gap)) and shape\$3 | | 2003/12/01 05:25 | | | 0 |
| (FP c or (a and (epit | (FP c or (a and epit | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and shape\$3 and (ANTIMON\$6 OR SB) and aluminum and gallium and (arsen\$5 or As) and (epitaxia\$6 with grow\$5) | | 2004/08/11 17:25 | | | 0 |
| 71 (FP c or (a | (FP c or (a | (FP or (Fabry near perot) near semiconductor) and (trench USPAT or (air near gap)) and shape\$3 and aluminum | | 2004/08/11 17:37 | | | 0 |

| | Туре | Hits | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|----|------|------|---|--|---------------------|----------|------------------|--------|
| 34 | BRS | 0 | | USPAT | 2003/12/01 05:27 | | | 0 |
| 35 | BRS | 0 | (FP or (Fabry near perot) near semiconductor) and (trenchi or (air near gap)) and shape\$3 and (oxidi\$5 near aluminium) | USPAT | 2003/12/01 05:27 | | | 0 |
| 36 | BRS | 0 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and shape\$3 and (oxidi\$5 near2 aluminium) | USPAT | 2003/12/01 05:27 | | | 0 |
| 37 | IS&R | 2 | ("5802086").PN. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/12/01 06:09 | | | 0 |
| 38 | BRS | 32 | (FP or (Fabry near perot) nea3r semiconductor) and (trench or (air near2 gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (AI"2"O"3" or (oxidized near2 aluminium)) | USPAT | 2004/08/11 17:31 | | | 0 |
| 39 | BRS | 0 | ior) and (trench n) or DBR or and | USPAT | 2004/08/11 18:14 | | | 0 |
| 40 | BRS | 108 | (FP or (Fabry near perot) near semiconductor) and (trenchi or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) | USPAT | 2004/08/11 17:40 | | | 0 |
| 41 | BRS | 7 | (FP or (Fabry near perot) near semiconductor) with (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) | USPAT | 2004/08/11 17:40 | | | 0 |
| 42 | BRS | 0 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminum near3 oxidiz\$3) | USPAT | 2004/08/11 | | | 0 |
| 43 | BRS | 0 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminium near3 oxidiz\$3) | USPAT | 2004/08/11 18:15 | | | 0 |
| 4 | BRS | 0 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminium near3 oxidiz\$3) | USPAT | 2004/08/11 18:15 | | | 0 |

| | Type | Type Hits | Search Text | DBs | Time Stamp | Comments | Comments Error Definition Errors | Errors |
|----|--------|-----------|--|-------|---------------------|----------|----------------------------------|--------|
| 45 | 45 BRS | - | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminium near3 oxi\$8) | USPAT | 2004/08/11 18:15 | | | 0 |
| 46 | 46 BRS | 27 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminum) | USPAT | 2004/08/11 18:16 | | | 0 |
| 47 | 47 BRS | 27 | (FP or (Fabry near perot) near semiconductor) and (trench or (air near gap)) and ((shape\$3 near2 beam) or DBR or mirror or (reflect\$5 near2 surface) or lens) and (aluminium) | USPAT | 2004/08/11 18:16 | | | 0 |